

REMARKS

Claims 1-13 are pending in the application. Claims 1-7 have been withdrawn from consideration as being directed to a non-elected invention. In the Final Office Action of February 20, 2004, the Examiner rejected claims 8-13 under 35 U.S.C. §103(a) as being unpatentable over *Yamahara et al.* in view of *Gibbons et al.* '609. Applicants respectfully traverse the rejection and address the Examiner's disposition below.

Applicants' independent claim 8 has been amended to claim a contrast ratio greater than or equal to 138. Support for this claimed subject matter can be found in Applicants' specification, for example, at page 12.

Claim 8, as amended, claims a liquid crystal display device comprising a pair of transparent substrates being aligned via a predetermined distance therebetween with at least one of them having thereon a film for liquid crystal orientation. A liquid crystal layer is in the distance between the substrates. The film is a UV-reactive film, and is exposed to first polarized UV rays while the film is on the substrate aligned parallel to a reference plane, and next to second polarized UV rays after the substrate is rotated on the reference plane. The device has a contrast ratio greater than or equal to 138.

Therefore, as claimed in claim 8, the substrate is rotated on the reference plane between UV ray exposures. As described in the specification, the first polarized UV ray exposure is used to control the intended liquid crystal orientation, then the substrate is rotated on the reference plane, and then the second polarized UV ray exposure is used to control the pre-tilt angle of the liquid crystal. (Specification, page 3, lines 12-23). Applicants' device, as claimed in claim 8, has beneficial characteristics from the substrate being rotated between UV ray exposures. Specifically, a stable pre-tilt angle is present in the liquid crystal and a contrast ratio greater than or equal to 138 is achieved. If, for example, the substrate is not rotated on the reference plane, and instead the radiation source is moved on an elevation angle relative to the reference plane, then the pre-tilt angle in the liquid crystal would not be as stable as in Applicants' claimed device and a lower contrast ratio would be achieved.

This is clearly unlike *Yamahara* in view of *Gibbons* '609, which fails to disclose or even suggest a device that has a contrast ratio greater than or equal to 138. Referring to *Yamahara* Table 1 at Col. 16, *Yamahara* teaches contrast ratios of 107, 114 and 137. Nowhere does *Yamahara* discuss or even suggest using a contrast ratio greater than 137. Therefore, unlike Applicants' claim 8, *Yamahara* fails to disclose or suggest a contrast ratio greater than or equal to 138. Accordingly, *Yamahara* fails to disclose or suggest Applicants' claim 8.

Yamahara in view of *Gibbons '609* also fails to disclose or suggest Applicants' claim 8. In fact, *Gibbons '609* fails to discuss contrast ratios. Therefore, *Yamahara* in view of *Gibbons '609* still fails to disclose or suggest Applicants' claim 8.


Claims 9-13 depend directly or indirectly from claim 8 and are therefore allowable for at least the same reasons that claim 8 is allowable.

Applicants respectfully submit that the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 8-13 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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Christopher P. Rauch
SONNENSCHNEIN, NATH & ROSENTHAL LLP
P.O. Box #061080
Wacker Drive Station - Sears Tower
Chicago, IL 60606-1080
Telephone 312/876-2606
Customer #26263
Attorneys for Applicant(s)